NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

January 21, 2016

Mr. Mike Owens
U.S. EPA Region 8
1595 Wynkoop Street
Mail Code 8ENF – AT
Denver, CO 80202-1129

Re: Coyote Creek Mining Company

Dear Mr. Owens:

Per our conference call on January 14, 2016 between EPA (Mike Owens, Brian Joffe and Mai Denawa) and NDDH (Jim Semerad, Craig Thorstenson and David Stroh), the NDDH is providing the following information based upon your the request to provide more information on the alleged permitting deficiencies for the Coyote Creek Mining Company (CCMC) Air Quality Permit to Construct PTC15001. This information is in regard to the technical merit of the questions submitted in the letter to the EPA dated December 9, 2015. Based on the conference call, there are two main issues where we would like to provide additional information:

First, there was ample public information released specific to the construction of the mine and this information was available prior to the issuance of the Minor Source Permit to Construct; therefore, per the North Dakota Air Pollution Control Rules, any concerns with respect to the Minor Source Permit to Construct needed to be brought up during this time. An internet search on Coyote Creek Mining Company will take you to a number of articles published as early as October of 2014 (Permit issuance was Jan. 7, 2015). The story was covered by both print media and TV news and was covered in the immediate vicinity (Beulah, ND) and throughout the State. Examples include the Bismarck Tribune, Dickinson Press, Beulah Beacon, KXNET TV news (Minot serving the Beulah area) and KFGO TV news out of Fargo.

In addition, on October 9, 2014 the NDDH issued a public notice for the NPDES Permit being issued for the construction of the Coyote Creek Mine. Only one comment was received from the North Dakota Parks & Recreation Department and the comment was not specific to air quality, but rather animal species habitat.

Secondly, the detailed review of the proposed facility included the EPA document titled the "Standards of Performance for Coal Preparation and Processing Plants (40 CFR 60 Subpart Y) Response to Comments Received on Proposed Amendments (Published April 28, 2008; 73 FR 22901) and Supplemental Proposal (Published May 27, 2009; 74 FR 25304)", published September 2009. A copy of the applicable document sections are attached for your information.

The guidance specifically states that "The coal must be directly unloaded into receiving equipment, such as a hopper, to be subject to the provisions of Subpart Y" (see page 78).

Therefore, the coal processing and handling facility constitutes the beginning of NSPS Subpart Y applicability and the only regulated source at Coyote Creek Mine would be the coal handling and processing equipment. Per §60.2549(b)(2) "The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf)". There are no mechanical vents associated with the coal processing and conveying equipment at CCMC, therefore, the particulate matter limit does not apply. Additionally, Coyote Creek Mining Company will use passive enclosure containment systems (PECS) to control PM emissions from the coal handling and processing equipment. This is allowed under NSPS Subpart Y and the emissions are not quantifiable per pages 29 and 30 of the attached guidance document, as follows: "PECS and fogging systems do not use a powered machine to induce airflow and would not be subject to the PM emissions limit. For situations where these control technologies are used, only the opacity standard would apply."

Note that the NDDH included conditions in the PTC beyond the requirements of NSPS Subpart Y to include control of fugitive emissions. We have found fugitive emission control plans to be very successful in controlling nuisance dust at other mines in the state.

For these reasons we believe the process completed by the NDDH was complete and followed all regulatory requirements. Further, we expect no air quality issues based on our review and our extensive experience with similar facilities. We will follow-up the permit with compliance inspections as necessary. Lastly, we have not seen any evidence that would indicate that our determination was not complete or correct.

Please include our office on any correspondence with respect to this matter. If you have any questions, contact David Stroh of my staff at (701)328-5188.

Sincerely,

Terry L. O'Clair, P.E.
Director
Division of Air Quality

TLO/DS:saj
Enc:

integrated iron and steel plant would actually increase. Establishing emission limits for thermal dryers using these process gas fuels will only serve to discourage their use.

- The proposed standards are based on the assumption that thermal dryers located at traditional mine sites and coal preparation plants are typically fired with coal, but in the examples noted above, other fuels are normally used. At the very least, the rule should include a provision to allow operators of thermal dryers fired by natural gas, waste heat, or process gases to apply for a variance upon demonstration that emissions of SO_2, NO_x, CO and/or PM are well below the prescribed standards. Upon such a demonstration, monitoring requirements for these pollutants should be reduced or eliminated.

Response: As noted in the response to comment 3.2, EPA has maintained that coal preparation and processing plants may be found at industrial sites such as those described by the commenter. In the Response to Comments document for the October 24, 1974, proposal, EPA stated "[t]he specific coal processing operations regulated by these standards are affected regardless of whether they are located in coal liquefaction plants, power plants, coke ovens, etc." (see "Background Information for Standards of Performance: Coal Preparation Plants; Volume 3: Supplemental Information. January 1976. p. 22). Thus, EPA has not changed its interpretation. In addition, EPA has made no assumptions as to the source of the heat used in the thermal dryer as the commenter suggests. However, as noted above for Portland cement plants, EPA agrees that in the case of an affected source at an integrated iron and steel manufacturing facility, where the emissions from the thermal dryer would be considered as part of the blast furnace or coke oven emissions, the facility should be regulated under the appropriate steel mill or coke oven NSPS. As previously explained, EPA's intent at this time is to regulate emissions from a thermal dryer only in circumstances where coal, coal refuse, or residual oil are used as thermal input. Thermal dryers that use residual or waste heat from the combustion of these fuels would only be subject to the PM and opacity standards. Indirect thermal dryers for which the source of heat is subject to SO_2, NO_X, and/or CO limits under another 40 CFR part 60 subpart would not be subject to the emission limits for SO_2 and NO_X/CO. In addition, affected thermal dryers for which all of the thermal input is supplied by gaseous fuels (e.g., blast furnace gas, coke oven gas, natural gas) or distillate oil also would not be subject to the emission limits for SO_2 and NO_X/CO.

3.4 Subpart Y Coal Processing, Conveying, Storage and Transfer System Standards

3.4.1 Affected Sources

3.4.1.1 Coal Unloading Activities - Subpart Y Proposal Contrary to EPA Policy

Comment: Many commenters (085, 086, 088, 095, 107, 108, 112, 115, 117, and 120) stated that Subpart Y should not be applicable to coal unloading activities because of previous EPA applicability determinations and current EPA policy. Commenters disagree with EPA's rationale for its proposal to amend Subpart Y to include coal unloading activities. EPA concluded that coal unloading, in general, and truck dumps, in particular, are NSPS affected facilities at coal preparation plants based on (1) an "exceptionally strained" interpretation of the term "conveying equipment," (2) a guidance manual for agency inspection of coal unloading at coal preparation plants, and (3) a document that did not specifically address coal unloading but nevertheless

assumed that activity was regulated by Subpart Y. Review of the record shows evidence that EPA never intended for coal unloading activities to be an affected facility at coal preparation plants when Subpart Y was promulgated. Specific EPA determinations cited by commenters concerning EPA's intentions for regulating coal unloading activities under Subpart Y include the following.

- In 1980, EPA's first review of Subpart Y concluded that that coal unloading was not a Subpart Y affected facility.
- In 1995, EPA Region VIII advised the Wyoming Department of Environmental Quality that "truck coal dump operations are not affected facilities subject to the NSPS Subpart Y regulations."
- In 1998, EPA Headquarters published an interpretative ruling in the Federal Register stating that "coal unloading that involves conveying coal to plant machinery is regulated under Subpart Y" (63 FR 53288, dated October 05, 1998). EPA Headquarters "use[d] the term "coal unloading" to encompass "coal truck dumping" and "coal truck unloading" as well as dumping or unloading from trains, barges, mine cars, and conveyors." EPA explained its reasoning behind that 1998 interpretation, as follows: section 60.251(g) defines "coal processing and conveying equipment" as "any machinery used to reduce the size of coal to or remove coal and refuse from the machinery. This includes, but is not limited to, breakers, crushers, screens, and conveyor belts." The key phrases are "the equipment used to convey coal to . . . machinery" and "but not limited to." Although the equipment involved in coal unloading varies from plant to plant (the definition is written broadly enough to accommodate the differences), what is important is that the equipment performs the function of conveying. It should be noted that if the coal is unloaded for the purpose of storage, then the unloading activity is not an affected facility under Subpart Y. The coal must be directly unloaded into receiving equipment, such as a hopper, to be subject to the provisions of Subpart Y (63 FR 53289).
- Subpart OOO explicitly excludes truck dumping from NSPS control requirements (section 60.672(d)). Subpart OOO was just recently revised, 74 FR 19294 (April 28, 2009), and it continues to contain that NSPS-exclusion for truck dumping. Thus, in the absence of (1) representative data for achievable levels of controlled emissions from coal unloading and (2) associated documentation that the costs of such controls are reasonable, the obvious inference is that coal unloading should also remain excluded from NSPS.

Response: As commenters noted, in 1998 EPA issued an interpretative ruling that states that "coal unloading" operations (which include both truck and rail car dumping) are regulated under subpart Y. This interpretative ruling has not been changed in the intervening years and, thus, remains in effect. In the interpretative ruling, EPA concluded

> …that coal unloading that involves conveying coal to plant machinery fits within the definition of "coal processing and conveying equipment." 40 CFR 60.251(g) defines "coal processing and conveying equipment" as "any machinery used to reduce the size of coal or to separate coal from refuse, and the equipment used to convey coal to or remove coal and refuse from the machinery. This includes, but is not limited to, breakers, crushers, screens, and conveyor belts." The key phrases are "the equipment used to convey coal to * * * machinery" and "but is not limited to." While the "equipment"

must be addressed. This becomes very costly for the operator and produces a negative impact to the environment.

Response: Handling of the collected dust in the manner noted by the commenter would be subject to the provisions of Subpart Y.

2.4.5 Conveyor System Enclosures

2.4.5.1 Enclosure Fugitive Dust Emission Points

Comment: One commenter (038) stated that the primary fugitive emission generation points for an enclosed conveyor system are at the drop points rather than along the belt runs. As such, the commenter stated that it should be specified that, for systems that are enclosed, the emission control and monitoring points for coal conveying systems should be relegated to the drop points.

Response: Emission control and monitoring requirements under Subpart Y apply to all openings in an enclosed conveyor system where fugitive coal dust emissions potentially can be released to the atmosphere. However, it is common for sources to monitor emissions only at transfer or drop points on conveyer belts.

2.4.5.2 Enclosure Safety

Comment: Two commenters (027 and 035) stated that an enclosure should serve the purpose of providing a cavity for controlling PM, and an enclosed conveyor is comprised of a conventional belt conveyor, equipped with sideboards and a cover (typically a three-sided enclosure). Each side of the enclosure includes a "skirt" that minimizes and controls the ingestion of ambient air and allows air infiltration. The commenters stated that safety and explosion concerns strongly caution against completely enclosing conveyors handling non-bituminous coals.

Response: Revised amendments to Subpart Y published in the May 27, 2009, supplemental proposal notice would not require that affected sources be mechanically vented (see 74 FR 25313 and Section 3 of this document). Coal handling operations that are not mechanically vented would be subject only to opacity standards. Thus, conveyors handling non-bituminous coals need not be completely enclosed to be in compliance with Subpart Y.

2.4.6 PM Emission Limits

2.4.6.1 Applicability of PM Emission Limits

Comment: Two commenters (021 and 031) stated that PM emissions from fogging systems and PECS cannot be measured using EPA Method 5 and, consequently, sources that use fogging systems and/or PECS should not be subject to the PM grain loading standard.

Response: Revised amendments to Subpart Y published in the May 27, 2009, supplemental proposal notice would establish a new PM emissions limit that would apply only to affected sources that are mechanically vented (see 74 FR 25313 and Section 3 of this document). "Mechanical vent" is defined to mean a vent using a powered mechanical drive (machine) to induce air flow. PECS and fogging systems do not use a powered machine to induce airflow and

would not be subject to the PM emissions limit. For situations where these control technologies are used, only the opacity standard would apply.

2.4.6.2 Fenceline Ambient Air Monitoring of Coal Preparation Facilities

Comment: One commenter (052) stated that the PM size fractions used for the NAAQS ($PM_{2.5}$ and PM_{10}) should be addressed by Subpart Y. The commenter requested that EPA consider fenceline ambient air monitoring of coal preparation facilities to quantify $PM_{2.5}$ and PM_{10} emissions as a requirement under Subpart Y.

Response: CAA section 111 requires new sources to meet emission standards based on BDT. Fenceline ambient air monitoring to quantify pollutant emissions levels would not ensure that BDT-based emission standards are being met on each affected facility within the fenceline (i.e., the fenceline emission could not be apportioned back to each affected facility). As previously explained, amendments to EPA Method 201A were proposed on March 26, 2009 (74 FR 12970). The amendments add a particle-sizing device to allow for sampling of $PM_{2.5}$, PM_{10}, or both PM_{10} and $PM_{2.5}$. Until such time that Method 201A amendments are finalized and sufficient test data using that method can be collected for coal thermal dryers, determinations of the need to add separate $PM_{2.5}$ and/or PM_{10} emission limits to Subpart Y, the BDT for $PM_{2.5}$ and/or PM_{10} emissions, and the appropriate emission limits applicable to coal thermal dryers cannot be made.

2.4.6.3 Condensible PM Emission Limits

Comment: Two commenters (028 and 035) agree that condensible emissions are negligible for coal handling equipment because the ambient operating temperatures are inadequate to volatilize trace elements, and the process conditions will not form trace sulfur, nitrogen, or other species with vapor pressures to enable condensation as PM. For these reasons, the commenter agrees with EPA's decision not to propose a separate NSPS for CPM.

Response: Depending on the composition of an exhaust gas stream from a process, the PM emitted can consist of both a FPM fraction and a CPM fraction. The CPM fraction remains in a gaseous form in the exhaust stream until it is released into the atmosphere where it condenses to a solid form. Current test methods do not reliably measure the CPM fraction from a source. As previously explained, amendments to EPA Method 202 were proposed on March 26, 2009 (74 FR 12970). The amendments to Method 202 revise the sample collection and recovery procedures of the method to provide for more accurate and precise measurement of CPM. Until such time that Method 202 amendments are finalized and sufficient test data using the revised method can be collected for coal thermal dryers, a determination of the need to add a separate PM emissions limit for CPM emissions from coal thermal dryers cannot be made.

2.4.6.4 Selection of Proposed PM Emission Limit Level

Comment: Many commenters (021, 027, 028, 035, 039, 040, and 044) disagreed with the selection of the 0.005 gr/dscf PM emission limit level proposed for coal handling equipment using fabric filters for several reasons. Commenters stated that EPA failed to meet its obligations under the CAA by using emissions data collected for another industry group (nonmetallic mineral processing plants regulated under 40 CFR part 60, subpart OOO) to select